

**Commonwealth of Kentucky  
Division for Air Quality**

**REVISED PERMIT APPLICATION SUMMARY FORM**

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GENERAL INFORMATION:

Name:	Princeton Peaking Plant
Address:	686 Park Avenue Princeton, KY 42445
Date application received:	12-04-07
SIC Code/SIC description:	4911, Electric Power Generation
Source ID:	21-033-00038
Agency Interest:	85174
Activity:	APE20070001
Permit:	V-07-027

APPLICATION TYPE/PERMIT ACTIVITY:

<input checked="" type="checkbox"/> Initial issuance	<input type="checkbox"/> General permit
<input type="checkbox"/> Permit modification	<input type="checkbox"/> Conditional major
__Administrative	<input checked="" type="checkbox"/> Title V
__Minor	<input checked="" type="checkbox"/> Synthetic minor
__Significant	<input type="checkbox"/> Operating
<input type="checkbox"/> Permit renewal	<input checked="" type="checkbox"/> Construction/operating

COMPLIANCE SUMMARY:

<input type="checkbox"/> Source is out of compliance	<input type="checkbox"/> Compliance schedule included
<input type="checkbox"/> Compliance certification signed	

APPLICABLE REQUIREMENTS LIST:

<input type="checkbox"/> NSR	<input checked="" type="checkbox"/> NSPS	<input checked="" type="checkbox"/> SIP
<input type="checkbox"/> PSD	<input type="checkbox"/> NESHAPS	<input type="checkbox"/> Other
<input type="checkbox"/> Netted out of PSD/NSR	<input type="checkbox"/> Not major modification per 401 KAR 51:001, 1(116)(b)	

MISCELLANEOUS:

- ☐ Acid rain source
- ☐ Source subject to 112(r)
- ☐ Source applied for federally enforceable emissions cap
- ☐ Source provided terms for alternative operating scenarios
- ☐ Source subject to a MACT standard
- ☐ Source requested case-by-case 112(g) or (j) determination
- ☐ Application proposes new control technology
- ☒ Certified by responsible official
- ☒ Diagrams or drawings included
- ☐ Confidential business information (CBI) submitted in application
- ☐ Pollution Prevention Measures
- ☐ Area is non-attainment (list pollutants):

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EMISSIONS SUMMARY:

Pollutant	Actual (tpy)	Potential (tpy)
PM/PM <sub>10</sub>	0	14.39
SO <sub>2</sub>	0	3.98
NO <sub>x</sub>	0	194.76
CO	0	239.64
VOC	0	28.16
Acetaldehyde	0	0.002
Acrolein	0	0.001
Benzene	0	0.061
Formaldehyde	0	0.007
Naphthalene	0	0.011
Toluene	0	0.024
Xylenes	0	0.016

**SOURCE DESCRIPTION:**

The Princeton Peaking Plant applied to the Kentucky Division for Air Quality on May 5, 2007, to construct and operate an electric generating facility in Princeton, KY. Additional information was provided to the Division on August 20, 2007. The electricity will be generated using nine Caterpillar Model 3516 B reciprocating engines, or similar equipment. The engines will be used to meet peak electricity demand. The reciprocating engines offer quick-start capability and will drive generators to produce electric power for distribution. Each engine will have an approximate heat input of 21.74 MMBtu/hr (HHV) with nominal output of 2 MW. The units use No. 2 fuel oil. Combined operating hours for all engines will be limited to 7800 hours per year. Two 32,000 gallons storage tanks will be constructed as part of the project. These two tanks are now insignificant activities, are moved from the permit Section B to Section C, and are exempt from Regulation 401 KAR 60:005, Sections 2 and 3(1)(q) - incorporates by reference 40 CFR Part 60.110b to 60.117b (Subpart Kb). Maximum

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throughput of No. 2 fuel oil will be 1, 37 9,700 gallons per year. This throughput may be through a single tank or split between the two tanks.

**EMISSIONS AND OPERATING CAPS DESCRIPTIONS:**

To preclude the applicability of 401 KAR 51:017, Prevention of Significant Deterioration, source-wide emissions of Carbon Monoxide (CO), are limited to less than 225 tons per year. Sulfur content of the fuel oil shall not exceed 0.05 percent by weight. The units shall fire No.2 fuel oil and the total combined operating hours shall not exceed 7800 hours per year. Maximum throughput of fuel oil shall not exceed 1,379,700 gallon per year. Additionally, the source shall be limited to 9 tons per year for a single hazardous air pollutant (HAP) and 22.5 for combined HAPs.

**OPERATIONAL FLEXIBILITY:**

None